Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP: \_\_\_\_\_\_\_

HW#9H: Segments and Congruence

Honors Geometry

Due Date: Tuesday, Sept. 23rd

**Failure to show work on all problems or use complete sentences will result in a LaSalle.**

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| --- | --- | --- | --- | --- |
| 1. Measure the following line segments to the nearest tenth of a centimeter and the nearest of an inch.    AB: \_\_\_\_\_\_\_\_ centimeters \_\_\_\_\_\_\_\_\_ inches  CD: \_\_\_\_\_\_\_\_ centimeters \_\_\_\_\_\_\_\_\_ inches | | 2. On a particular line segment, points *A*, *B*, and *C* are collinear, and *B* is between *A* and *C*. If *AB* = 15 and *BC* = 9, what is the measure of *BC*? | | |
| 3. Find *KM.* | | 4. Find *ST.* | | |
| 5. On the map, AB represents a trail that you are hiking. You start from the beginning of the trail and hike for 90 minutes at a rate of 1.4 miles per hour. How much farther do you need to hike to reach the end of the trail? | | 6. **On a separate sheet of graph paper (YOU WILL GET LASALLE IF NOT)**, plot the given points in a coordinate plane. Then state whether the line segments are congruent.   1. Plot the points *A*(2, 2), *B*(4, 2), *C*(–1, –1), *D*(–1, 1)   Are AB and CD congruent? \_\_\_\_\_\_\_\_\_\_\_\_\_   1. Plot the points *M*(1, –3), *N*(4, –3), *O*(3, 4), *P*(4, 4)   Are MN and OP congruent? \_\_\_\_\_\_\_\_\_\_\_\_\_   1. Plot the points *E*(–3, 4), *F*(–1, 4), *G*(2, 4), *H*(–1, 1)   Are EG and FH congruent? \_\_\_\_\_\_\_\_\_\_\_\_\_ | | |
| 7. Find *LM*. | 8. Find *VW*. | | | 9. Find *YZ*. |
| Use the number line below to answer questions 10 - 11. | | | | |
| 10. How much longer is *AD* than *BE*? | | | 11. How much longer is *CD* than *DE*? | |
| Use the description of a number line below to answer questions 5 – 6. Sketch the number line below before answering the questions.  *On a number line, point W is located at 3, X is located at –5, Y is located at –16, and Z is located at 11.* | | | | |
| 12. What is the distance, in coordinate units, between points *W* and *Z*? | | | 13. What is the distance, in coordinate units, between points *Y* and *Z*? | |
| 14. How much longer is *WY* than *XZ*? | | | 15. How much longer is *YZ* than *WX*? | |

You must ***GRASP*** on a separate piece of paper (backside of #6 in this homework):

16) Maria throws a shot put with an initial velocity of 25 feet per second. She releases it at a height of 5 feet.

a. Write a function that demonstrates the height of the shot put after *t* seconds.

b. What is the height of the shot put at 1 second?

c. Find the time the shot put is in the air.

d. What is the maximum height of the shot put?

e. How long does it take the shot put to reach its maximum height?